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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,210	01/02/2002	Kiyoko F. Aoki	BDI001	9004
28848	7590	12/04/2003	EXAMINER	
TOPE-MCKAY & ASSOCIATES 23852 PACIFIC COAST HIGHWAY #311 MALIBU, CA 90265			LY, CHEYNE D	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/040,210	<b>Applicant(s)</b> AOKI ET AL.0	
	<b>Examiner</b> Cheyne D Ly	<b>Art Unit</b> 1631	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-120 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-120 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>9/2/9109</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Due to the withdrawal of the restriction required mailed June 30, 2003, claims 1-120 are examined on the merits.

**CLAIM REJECTIONS - 35 USC § 101**

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-120 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory algorithm type subject matter.
4. Claims 1-40, 79-117, 118, and 120 are rejected because said claims are directed to a computer system and program product comprising proteomic and genomic data which are considered descriptive material wherein said material is either functional, a system and computer readable media; or non-functional. The proteomic and genomic data of the instant invention are regarded as descriptive non-functional descriptive material; thereby, cause the claimed invention to be non-statutory subject matter. The MPEP indicates that descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition (MPEP § 2106 (IV)(B)(1) (b)). Specific to the instant case, the computer system and computer program product merely store proteomic and genomic data so as to be read without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer. (MPEP § 2106 (IV)(B)(2) (a)).

5. Claims 41-78 and 119 are rejected because said claims are directed to a method comprises processes performed within a computer system. The transformation of signals or data inside a computer merely manipulates concepts or converts one set of numbers into another without producing a useful, concrete, and tangible result. (MPEP § 2106 (IV)(B)(2) (b)).

6. Further, it is acknowledged that the computer system, method and program comprise steps or means for partitioning and performing mathematical functions on said data, however, the step of making merely changes the data format does not create any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, therefore, such descriptive material alone does not impart functionality either to the data as so structured, or to the computer. Further, computer systems normally perform functions for the manipulating data, usually in binary form, perform mathematical operations, such as addition, subtraction, multiplication, division, or bit shifting, on the said data. (MPEP § 2106 (IV)(B))

#### **CLAIM REJECTIONS - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-120 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Schutz et al. (1999).

3. Schutz et al. discloses a computer apparatus, program product, and method for plotting proteomic and genomic data wherein the apparatus is a PC that runs Microsoft Excel computer product capable of receiving input (nucleic acid sequence) (page 1219, Material and Method §)

according to a partition scheme (Figure 2) and output a representation of the partition scheme (Figure 3), as in instant claims 1, 40, 79, and 118-120.

4. It is noted the documents by Monsen and Martin et al. discussed below are not being used as prior art but only to expand on the inherent features of Microsoft Excel as disclosed by Schutz et al. Limitations of the instant claims that are directed to features that are well-known in the art will not be cited in this instant rejection.

5. Monsen discloses Microsoft Excel having the means of generating a multiple charts from user entered data (user selected partition schemes). One of such chart is a pie chart with slices wherein each slice represents a portion of the overall partition scheme (Pages 134-135), as in instant claims 2-9, 14, 41-49, 80-87, and 92.

6. Microsoft Excel disclosed by Monsen has the capability to perform common mathematical functions such as subtraction and addition with data represented in the charts; and the underlying data is view in a form of a spreadsheet wherein data is in a form of a list (pages 94-96), as in instant claims 10, 11, 13, 15, 50, 88, 89, 91, and 93.

7. Martin et al. discloses Microsoft Excel provides a search function where a user may search for a specific piece of data (page 341, Finding a Text String §), as in claims 12, 51, and 90.

8. Martin et al. discloses an intersection operator is used for referring to an intersection point of the two ranges (page 281, Reference Operators § and page 293 Implicit Intersection §). User data are display in a spreadsheet and the Chart Wizard allows user to create charts corresponding the select data with a one key method (pages 448-449, Charting at the Click of a Button), as in instant claim 16-39, 52-78, and 94-117.

Art Unit: 1631

### CONCLUSION

9. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 872-9306.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

12. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly  
11/28/03

  
ARDIN H. MARSCHEL  
ATTORNEY EXAMINER